

DETAILED ACTION

1. This action is in response to applicant's remarks/arguments filed on 03/01/2010. Claims 1-12, 14, 16, 19 and 20 have been cancelled. Claims 31-35 have been added. Claims 12, 13, 15, 17, 18 21 and 22 have been amended. Currently, claims 12, 13, 15, 17, 18 and 21-35 are pending. **This action is made FINAL.**

Response to Arguments

2. Applicant's arguments filed 03/01/2010 have been fully considered but they are not persuasive.

Consider independent claim 12, applicant, on pages 8-10 of the remark dated 03/01/2010, argues that Badger does not disclose "storing an identifier at the tuner" and that Alpaiwalia fails to disclose "storing an identifier for identifying a location". The Examiner would like to point out that claim 12 does not, at least clearly, recites any of the features/limitations above; therefore, any argument relating to the above features/limitations is considered moot. Claim 12 merely recites "at least one identifier for identifying at least one database field...", and since Alpaiwalia discloses the tuner 104 and tuner parameters storage 112 are matched (read as inherently existing matching element on them to match them, which the matching element would be reasonable read as the "at least one identifier for identifying..." as recited in claim 12), Badger in view of Alpaiwalia discloses the claimed limitation in question.

Consider arguments on dependent claims 13, 15, 18 and 23-35, which applicant argues none of Potrebic, MacLean and Englmeier discloses the identifier, see response for claim 12 above.

3. Applicant's arguments with respect to claims 21 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendments

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12, 13, 15-22 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Badger** (U.S. Patent No. 5,678,211) in view of **Alpaiwalia et al.** (U.S. PGPub 2004/0051815 A1).

Consider **claim 12**, Badger shows and discloses a receiver comprising a pre-calibrated tuner arranged therein, said tuner being pre-calibrated prior to arrangement in said receiver (read as tuner section 10 connects to DAC and combiner units 32, 34 and 36, and the tuning values are predetermined, lines 3-54 of column 2, Fig. 1) having at least one electronically tuned filter (read as filter 14, lines 3-16 of column 2, Fig. 1), wherein said receiver includes means for calibrating said electronically tuned filter by retrieving a calibration signal generated by the pre-calibration of said tuner (read as the digital trimming signal from ROM 42 for turning the filter 14 is from bus line 48, lines 37-54 of column 2).

However, Badger discloses the above claimed invention but does not specifically discloses the tuner being individually pre-calibrated prior arrangement and retrieving an individualized calibration signal generated by the pre-calibration of said tuner prior to arrangement in said receiver and specifically identified by at least one identifier associated with at least one database filed in a database outside said receiver storing at least said individualized calibration signal for calibrating said electronically tuned filter with said receiver.

Nonetheless, Alpaiwalia discloses a receiver comprising a pre-calibrated tuner (read as tuner 104, Figure 2, par [0018]-[0022]) arranged therein, said tuner being individually pre-calibrated prior to arrangement in said receiver (read as tuner

parameters for tuner 104 is determined before placing on receiver 200, Figure 2), wherein said receiver includes means (read as Microprocessor 108) for calibrating said electronically tuned filter by retrieving an individualized calibration signal generated by the pre-calibration (read as storage containing calibration parameter 112 outside of chassis 200 before being programmed into the updatable memory 202 for a matched and replaced tuner 104 of said tuner prior to arrangement in said receiver and specifically *identified* by at least one identifier associated with at least one database field in a database outside said receiver storing at least said calibration signal for calibrating said electronically tuned filter with said receiver (read as in par [0021]-[0022], the memory 202 is programmed with the correct tuner control information (calibration/tuner parameters) prior to installation in the chassis 200 (i.e. a receiver as shown in figure 2), which the tuner parameters in the memory 202 is *MATCHED* to a specific tuner module 104 (read as inherently existing matching element on them to match them, which the matching element would be reasonable read as the "at least one identifier for identifying..." as recited). Specifically, the inherently existing database comprising the calibration/tuner parameters to be programmed into the memory 202 is *OUTSIDE* of the chassis 200 (i.e. a receiver) because the memory 202 is programmed when being installed into the chassis 200 (i.e. a receiver as shown in figure 2)).

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Alpaiwalia into the teachings of Badger for the purpose updating the calibrating parameter when needed to a matched tuner.

Consider **claim 13, as applied to claim 12 above**, Badger, as modified by Alpaiwalia, furthers discloses a receiver memory located outside the tuner for storing said at least one database field having said individualized calibration signal from said at least one database field (read as storage containing calibration signal outside of classis 200 before being programmed into the updatable memory 202 for a matched and replaced tuner 104, Alpaiwalia), said tuner further comprising a tuner bus (read as the wire connection between DAC 32 and microprocessor 40 that connects to the rewritable memory 202, Fig. 1 of Badger) coupled to the receiver memory for receiving the individualized calibration signal.

Consider **claim 15, as applied to claim 13 above**, Badger, as modified by Alpaiwalia, further discloses wherein said individualized calibration signal stored in the database and/or in the receiver memory (read as the rewritable memory 202) comprises a digital calibration signal (read as digital trimming control signal, lines 47-53 of column 2), with the receiver comprising a digital-to-analog converter (read as DAC 32, Fig. 1) for converting the digital calibration signal into an analog calibration signal (read as DAC 32 uses digital trimming signal to determine VC14, lines 22-37 of column 2, Fig. 1), wherein digital-to-analog converter (read as DAC 32, Fig. 1) located between the tuner bus (read as the wire connection between DAC 32 and microprocessor 40 that connects to the rewritable memory 202, Fig. 1) and the electronically tuned filter (read as filter 14, Fig. 1).

Consider **claim 17**, Badger discloses a tuner (read as tuner section 10 connects to DAC and combiner units 32, 34 and 36, and the tuning values are predetermined,

lines 3-54 of column 2, Fig. 1) comprising at least one pre-calibrated electronically tuned filter (read as filter 14, lines 3-16 of column 2, Fig. 1) for use in a receiver comprising the tuner (read as the tuning section 10 and the digital trimming signal from ROM 42 for turning the filter 14 is from bus line 48, lines 37-54 of column 2, Figure 1).

However, Badger discloses the above claimed invention but does not specifically discloses at least one identifier for specifically identifying at least one database filed in a database situated outside said receiver for storing at least one individualized calibration signal for calibrating said electronically tuned filter upon arrangement in said receiver.

Nonetheless, Alpaiwalia discloses a receiver comprising a pre-calibrated tuner (read as tuner 104, Figure 2, par [0018]-[0022]) arranged therein, said tuner being individually pre-calibrated prior to arrangement in said receiver (read as tuner parameters for tuner 104 is determined before placing on receiver 200, Figure 2), wherein said receiver includes means (read as Microprocessor 108) for calibrating said electronically tuned filter by retrieving an individualized calibration signal generated by the pre-calibration (read as storage containing calibration parameter 112 outside of chassis 200 before being programmed into the updatable memory 202 for a matched and replaced tuner 104 of said tuner prior to arrangement in said receiver and specifically *identified* by at least one identifier associated with at least one database field in a database outside said receiver storing at least said calibration signal for calibrating said electronically tuned filter with said receiver (read as in par [0021]-[0022], the memory 202 is programmed with the correct tuner control information (calibration/tuner parameters) prior to installation in the chassis 200 (i.e. a receiver as

shown in figure 2), which the tuner parameters in the memory 202 is *MATCHED* to a specific tuner module 104 (read as inherently existing matching element on them to match them, which the matching element would be reasonable read as the “at least one identifier for identifying...” as recited). Specifically, the inherently existing database comprising the calibration/tuner parameters to be programmed into the memory 202 is *OUTSIDE* of the chassis 200 (i.e. a receiver) because the memory 202 is programmed when being installed into the chassis 200 (i.e. a receiver as shown in figure 2)).

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Alpaiwalia into the teachings of Badger for the purpose updating the calibrating parameter when needed to a matched tuner.

Consider **claim 18, as applied to claim 17 above**, Badger, as modified by Alpaiwalia, furthers discloses a tuner bus for coupling to a receiver memory for receiving said individualized calibration signal stored in said receiver memory (read as the rewritable memory 202, figure 2 of Alpaiwalia); a the digital-to-analog converter (read as DAC 32, Fig. 1) located between the tuner bus (read as the wire connection between DAC 32 and microprocessor 40 that connects to the rewritable memory 202) and the electronically tuned filter (read as filter 14, Fig. 1), the digital-to-analog converter for converting the digital calibration signal into an analog calibration signal, where said individualized calibration signal stored in said database and/or in said receiver memory

comprises a digital calibration signal (read as the calibration parameter, par [0021] of Alpaiwalia).

Consider **claim 19, as applied to claim 18 above**, Badger, as modified by Alpaiwalia, furthers discloses wherein said individualized calibration signal stored in the database and/or in the receiver memory (read as the rewritable memory 202) comprises a digital calibration signal (read as digital trimming signal, lines 22-53, column 2), and wherein the receiver further comprises a digital-to-analog converter for converting the digital calibration signal into an analog calibration signal (read as DAC 32 converts digital trimming signal into VC14, lines 17-53, column 2, Fig. 1).

Consider **claim 22**, Badger discloses a method comprising:

providing tuners that comprise at least one pre-calibrated electronically tunable filter (read as tuner section 10/filter 14 connects to DAC and combiner units 32, 34 and 36, and the tuning values are predetermined and stored in PROM 42, lines 3-54 of column 2, Fig. 1).

However, Badger discloses the above claimed invention but does not specifically discloses at least one identifier for retrieving an individualized calibration signal generated during the individualized pre calibration of said electronically tunable filter from at least one database field in a database situated outside said tuner; and operating the database that comprises the database fields for storing said individualized calibration signal for calibrating the electronically tunable filter upon arranging the

electronically tunable filter within a receiver according to the individualized pre-calibration.

Nonetheless, Alpaiwalia discloses a receiver comprising a pre-calibrated tuner (read as tuner 104, Figure 2, par [0018]-[0022]) arranged therein, said tuner being individually pre-calibrated prior to arrangement in said receiver (read as tuner parameters for tuner 104 is determined before placing on receiver 200, Figure 2), wherein said receiver includes means (read as Microprocessor 108) for calibrating said electronically tuned filter by retrieving an individualized calibration signal generated by the pre-calibration (read as storage containing calibration parameter 112 outside of chassis 200 before being programmed into the updatable memory 202 for a matched and replaced tuner 104 of said tuner prior to arrangement in said receiver and specifically *identified* by at least one identifier associated with at least one database field in a database outside said receiver storing at least said calibration signal for calibrating said electronically tuned filter with said receiver (read as in par [0021]-[0022], the memory 202 is programmed with the correct tuner control information (calibration/tuner parameters) prior to installation in the chassis 200 (i.e. a receiver as shown in figure 2), which the tuner parameters in the memory 202 is *MATCHED* to a specific tuner module 104 (read as inherently existing matching element on them to match them, which the matching element would be reasonable read as the "at least one identifier for identifying..." as recited). Specifically, the inherently existing database comprising the calibration/tuner parameters to be programmed into the memory 202 is

OUTSIDE of the chassis 200 (i.e. a receiver) because the memory 202 is programmed when being installed into the chassis 200 (i.e. a receiver as shown in figure 2)).

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Alpaiwalia into the teachings of Badger for the purpose updating the calibrating parameter when needed to a matched tuner.

Badger, as modified by Alpaiwalia, discloses the method above but fails to mention a method of "selling". However, it is examiner's contention that since the limitations are taught by Badger, the "selling" method in the preamble is taught as well.

Consider **claims 31 and 32**, as applied to claim 12 above, Badger, as modified by Alpaiwalia, discloses the matching element as the identifier but does not specifically disclose wherein the at least one identifier comprises a visible number present on/near the tuner as in claim 31 and wherein the at least one identifier comprises a barcode present on/near the tuner.

Nonetheless, the Examiner takes Official Notice of the fact that it is extremely well-known in the art that barcodes are being widely used as a way for identification.

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to use barcode as the matching element as it is just a matter of design choice.

Consider **claim 33**, as applied to claim 12 above, Badger, as modified by Alpaiwalia, discloses wherein the at least one identifier is stored at the tuner by the manufacture (read as the matching element on the tuner 104, figure 2 of Alpaiwalia).

Consider **claim 34**, as applied to claim 12 above, Badger, as modified by Alpaiwalia, discloses wherein the tuner excludes the individualized calibration signal (read as the calibration parameter is from a memory similar to rewritable memory EEPROM 202, not from the tuner itself, abstract of Alpaiwalia).

Consider **claim 35**, as applied to claim 12 above, Badger, as modified by Alpaiwalia, discloses wherein the tuner further comprises a high-frequency shielding encasing, and the at least one identifier is accessible at the tuner without a removable cover for the high-frequency shielding encasing of the tuner (read as the whole tuner is being replaced, matched calibration parameter is being written on the rewritable memory EEPROM 202, no cover removable is needed, abstract of Alpaiwalia).

Claims 23, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Badger** (U.S. Patent No. 5,678,211) in view of **Alpaiwalia et al.** (U.S. PGPub 2004/0051815 A1), and in further view of **Potrebic et al.** (U.S. Patent 6804824), and in further view of **MacLean et al.** (U.S. Patent 7,088,388).

Consider **claims 23, 24 and 26, as applied to claims 12, 17 and 22 respectively above**, Badger, as modified by Alpaiwalia, discloses the claimed invention above but does not specifically discloses wherein said tuner includes a memory to store the at least one identifier, the at least one identifier comprising a Uniform Resource Locator (URL) that identifies a location of the individualized calibration signal via an input/output of the receiver as in claims 23 and 26, and wherein said tuner includes a memory to store the at least one identifier, the at least one identifier comprising an

Internet Protocol Address that identifies a location of the individualized calibration signal for retrieval via an input/output of the receiver as in claim 24.

Nonetheless, in related art, Potrebic discloses that tuner may be used to retrieve the updateable data from the Internet (i.e. IP address and URL as common identifier for Internet network as well-known in the art), col. 3 with lines 1-9, col. 9 with line 49 to col. 10 with line 8.

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Potrebic into the teachings of Badger, which modified by Alpaiwalia, as it is just a matter of design choice to update data from the Internet.

Badger, as modified by Alpaiwalia and Potrebic, discloses the update of calibration parameters and downloading of updatable date from the Internet but does not disclose downloading the updatable data as tuner calibration parameters.

However, MacLean discloses an automatic calibrating method which the calibrating data is downloaded from the Internet into an electronic system for appropriate calibration, col. 31 with lines 51-56.

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of MacLean into the teachings of Badger, which modified by Alpaiwalia and Potrebic, for the purpose of calibrating the tuner appropriately.

Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Badger** (U.S. Patent No. 5,678,211) in view of **Alpaivalia et al.** (U.S. PGPub 2004/0051815 A1), and in further view of **Englmeier et al.** (U.S. Patent 7119834 B2).

Consider **claims 27-30, as applied to claims 12, 17, 21 and 22 respectively above**, Badger, as modified by Alpaivalia, discloses the claimed invention and the tuner comprises more than one electronically tuned filter (read as filters 14, 20 and 22,) above but does not specifically disclose wherein said more than one electronically tuned filter shares an at least one identifier, which the individualized calibration signal comprising a number of parts which indications regarding which parts are specifically associated with individual electronically tuned filters as in claims 27 and 28, and wherein the individualized calibration signal comprises a number of parts with indications regarding which parts are specifically associated with respective individual electronically tuned filter, and wherein a the at least one identifier is shared by more than one of the individual electronically tuned filters as in claims 29 and 30.

Nonetheless, in related art, Englmeier discloses a receiver and calibration system and method, comprising tracking filters operate to provide calibration in responsive to a calibration signal identified by an already established path from a centralized system, the receiver uses the downloaded calibration signal to generates tracking control 1 and tracking control 2 to controls the two different filters in filter network 310, Figure 3, lines 58-62 of col. 2, line 64 of col. 8 to line 3 of col. 8.

Therefore, it would have been obvious for person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Englmeier into the

teachings of Badger, which modified by Alpaiwalia, to design the receiver to obtain tuner calibration parameter from a single source to avoid the receiver has to download the data from multiple sources.

Claims 21, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Badger** (U.S. Patent No. 5,678,211) in view of **Alpaiwalia et al.** (U.S. PGPub 2004/0051815 A1), and in further view of **Potrebic et al.** (U.S. Patent 6804824), and in further view of **MacLean et al.** (U.S. Patent 7,088,388).

Consider **claim 21**, Badger a method for electronically tuning at least one pre-calibrated electronically tuned filter (read as filter 14 is being tuned by VC14 from DAC 32, which uses trimming signal from PROM 42) in a tuner (read as tuner section 10 connects to DAC and combiner units 32, 34 and 36, and the tuning values are predetermined, lines 3-54 of column 2, Fig. 1) in a receiver, wherein said method comprises the steps of generating a calibration signal by pre-calibrating said electronically tuned filter prior to arrangement in said receiver (read as the digital trimming signal from ROM 42 for turning the filter 14 is from bus line 48, lines 37-54 of column 2).

However, Badger discloses the above claimed invention but does not specifically discloses the individually pre-calibrated electronically tuned filter and associating said individualized calibration signal with a specific identifier of at least one database filed in a database situated outside said receiver, and downloading the individually calibration

signal from said database for calibrating said electronically tuned filter within said receiver according to the individualized pre-calibration.

Nonetheless, Alpaiwalia discloses a receiver comprising a pre-calibrated tuner (read as tuner 104, Figure 2, par [0018]-[0022]) arranged therein, said tuner being individually pre-calibrated prior to arrangement in said receiver (read as tuner parameters for tuner 104 is determined before placing on receiver 200, Figure 2), wherein said receiver includes means (read as Microprocessor 108) for calibrating said electronically tuned filter by retrieving an individualized calibration signal generated by the pre-calibration (read as storage containing calibration parameter 112 outside of chassis 200 before being programmed into the updatable memory 202 for a matched and replaced tuner 104 of said tuner prior to arrangement in said receiver and specifically *identified* by at least one identifier associated with at least one database field in a database outside said receiver storing at least said calibration signal for calibrating said electronically tuned filter with said receiver (read as in par [0021]-[0022], the memory 202 is programmed with the correct tuner control information (calibration/tuner parameters) prior to installation in the chassis 200 (i.e. a receiver as shown in figure 2), which the tuner parameters in the memory 202 is *MATCHED* to a specific tuner module 104 (read as inherently existing matching element on them to match them, which the matching element would be reasonable read as the "at least one identifier for identifying..." as recited). Specifically, the inherently existing database comprising the calibration/tuner parameters to be programmed into the memory 202 is

OUTSIDE of the chassis 200 (i.e. a receiver) because the memory 202 is programmed when being installed into the chassis 200 (i.e. a receiver as shown in figure 2)).

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Alpaiwalia into the teachings of Badger for the purpose updating the calibrating parameter when needed to a matched tuner.

However, Badger, as modified by Alpaiwalia, discloses the claimed invention above but does not specifically discloses wherein said tuner includes a memory to store the at least one identifier.

Nonetheless, in related art, Potrebic discloses that tuner may be used to retrieve the updateable data from the Internet (i.e. IP address and URL as common identifier for Internet network as well-known in the art), col. 3 with lines 1-9, col. 9 with line 49 to col. 10 with line 8.

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Potrebic into the teachings of Badger, which modified by Alpaiwalia, as it is just a matter of design choice to update data from the Internet.

Badger, as modified by Alpaiwalia and Potrebic, discloses the update of calibration parameters and downloading of updatable date from the Internet but does not disclose downloading the updatable data as tuner calibration parameters.

However, MacLean discloses an automatic calibrating method which the calibrating data is downloaded from the Internet into an electronic system for appropriate calibration, col. 31 with lines 51-56.

Therefore, it would have been obvious for a person with ordinary skill in the art at the time the invention was made to incorporate the teachings of MacLean into the teachings of Badger, which modified by Alpaiwalia and Potrebic, for the purpose of calibrating the tuner appropriately.

Consider **claim 25**, as applied to claim 21 above, Badger, as modified by Alpaiwalia, Potrebic and MacLean, discloses the tuner providing the at least one identifier, the at least one identifier comprising a Uniform Resource Locator (URL) that identifies a location of the individualized calibration signal for retrieval via an input/output of the receiver (read as IP address and URL as common identifier for Internet network, col. 3 with lines 1-9, col. 9 with line 49 to col. 10 with line 8 of Potrebic).

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Badger** (U.S. Patent No. 5,678,211) in view of **Alpaiwalia et al.** (U.S. PGPub 2004/0051815 A1), and in further view of **Potrebic et al.** (U.S. Patent 6804824), and in further view of **MacLean et al.** (U.S. Patent 7,088,388), and in further view of and in further view of **Englmeier et al.** (U.S. Patent 7119834 B2).

Consider **claim 29**, as applied to claim 21 above, Badger, as modified by Alpaiwalia, Potrebic and MacLean, discloses the claimed invention above but does not disclose wherein the individualized calibration signal comprises a number of parts with

indications regarding which parts are specifically associated with respective individual electronically tuned filters, and wherein the at least one identifier is shared by more than one of the individual electronically tuned filters.

Nonetheless, in related art, Englmeier discloses a receiver and calibration system and method, comprising tracking filters operate to provide calibration in responsive to a calibration signal identified by an already established path from a centralized system, the receiver uses the downloaded calibration signal to generates tracking control 1 and tracking control 2 to controls the two different filters in filter network 310, Figure 3, lines 58-62 of col. 2, line 64 of col. 8 to line 3 of col. 8.

Therefore, it would have been obvious for person with ordinary skill in the art at the time the invention was made to incorporate the teachings of Englmeier into the teachings of Badger, which modified by Alpaiwalia, Potrebic and MacLean, to design the receiver to obtain tuner calibration parameter from a single source to avoid the receiver has to download the data from multiple sources.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junpeng Chen whose telephone number is (571) 270-1112. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2618

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Junpeng Chen
J.C./jc

/Edward Urban/
Supervisory Patent Examiner, Art Unit 2618